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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,953

09/08/2006

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4144-9

6872

23117 7590 04/09/2008
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EXAMINER

WANG-HURST, KATHY W

ART UNIT

PAPER NUMBER

4173

MAIL DATE

DELIVERY MODE

04/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,953	Applicant(s) NYLANDER ET AL.	
	Examiner KATHY WANG-HURST	Art Unit 4173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09/08/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/08/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "SGSN" and "MSC" have both been mis-numbered in Fig. 1 according to applicant's specification. "MSC" has been referred to as "202" not "203", and SGSN has been referred to as "203" not "202". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 7 is objected to because of the following informalities: "said address information relates identifies an access point communicating with said mobile station" is grammatically incorrect. Appropriate correction is required. For examining purposes, this sentence is interpreted as "said address information identifies an access point communicating with said mobile station".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Michael Gallagher et al., US 7127250, herein referred as Gallagher.

Regarding claim 1, Gallagher discloses an unlicensed-radio access network connected to a core network portion of a licensed mobile network (**Abstract, line 4**), said

unlicensed-radio access network (**Fig. 2**) comprising:

an access controller (**Fig. 2, 132**) connected to said core network portion,

a fixed broadband network (**Fig. 2, 130**) connected to said access controller and having

a plurality of access points (**Fig. 2, 128**), each said access point defining a mini-cell

coverage area and supporting an unlicensed-radio interface permitting communication

between mobile stations (**Fig. 2, 102**) located within a respective mini-cell and said

access controller,

wherein said access controller is associated with one or more location areas in said

licensed radio mobile network and comprises a database (**col. 13, line 33, IAN-**

System-Information wrapper) for storing the identification of mobile stations in

association with address information of said mobile station on said fixed broadband network **(Col. 12, lines 1-9, registering and storing mobile station information on a database)**, said access controller being adapted to delete said identification data when said mobile station ceases to operate in the coverage areas of said unlicensed radio access network. **(Col. 16, lines 61-67 and Col. 17 lines 1-25, mobile station is deregistered when the received signal is no longer acceptable.)**

Regarding claim 2, Gallagher discloses an access network as claimed in claim 1, that wherein said database is adapted to store the identification of mobile stations in association with at least one specific access point for the coverage area in which said mobile station is located. **(Col. 12, lines 1-10)**

Regarding claim 3, Gallagher discloses an access network as claimed in claim 1, wherein said access point controller is adapted to receive from said core network portion a paging message containing the identification of a mobile station located in the associated location area, to identify the at least one access point associated with said identified mobile station and to transmit said paging message to said identified at least one access point only. **(Col. 12, line 19-22)**

Regarding claim 4, Gallagher discloses an access network as claim1, wherein said access network controller is adapted to receive from a mobile station a message registering identification data for said mobile station and to store said new identification

data in said database in association with address information for said mobile station on said fixed broadband network. **(Col. 14, lines 57-60)**

Regarding claim 5, Gallagher discloses an access network as claimed in claim1, wherein said mobile station identification data is the international mobile subscriber identity (IMSI). **(Col. 13, line 13)**

Regarding claim 6, Gallagher discloses an access network as claimed in claim1, wherein said address information is a network address of said access points on said fixed broadband network. **(Col. 12, lines 26-43)**

Regarding claim 7, Gallagher discloses an access network as claimed in claim 6, wherein said address information identifies an access point communicating with said mobile station. **(Col. 12, lines 26-43)**

Regarding claim 8, Gallagher discloses an access network as claimed in claim1, wherein said access controller is adapted to delete said identification data on receipt of a message from said access point that said mobile station is no longer communicating with said access point. **(Col. 16, lines 61-67 and Col. 17, lines 1-25)**

Regarding claim 9, Gallagher discloses an access network as claimed in claim 1, wherein said access network controller is adapted to determine whether a connection

with said mobile station is maintained and to delete said identification data on determining that said connection is no longer maintained. **(Col. 16, lines 61-67 and Col. 17, lines 1-25)**

Regarding claim 10, Gallagher discloses an access network as claimed in claim 1, wherein said database is adapted to store the identification of mobile stations in association with a group of access point addresses, wherein said unlicensed access network comprises more than one group of access points. **(Col. 12, lines 1-25)**

Regarding claim 11, Gallagher discloses a method in an unlicensed-radio access network **(Fig. 2)** comprising a plurality of access points adapted to communicate with mobile stations over an unlicensed radio interface and an access controller connected to said access points via a broadband network and to a core network portion of a licensed radio cellular network, said method including the steps of:
receiving identification information specific to a mobile station from said mobile station**(Col. 14, lines 57-58)**,
registering said mobile station identification information in association with information identifying at least one access point in said access point controller, and updating said registered information when communication between said mobile station and said unlicensed radio access network ceases. **(Col. 14, lines 58-65)**

Regarding claim 12, Gallagher discloses a method as claimed in claim 11, further

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comprising:

receiving in said access controller a message from said core network portion paging a mobile station, retrieving information identifying at least one access point for said paged mobile **(Col. 12, lines 19-22, core network sending paging request to base**

subsystem where mobile station is registered), and

forwarding said paging message only to the at least one access point identified in association with said registered mobile station identification information. **(Col. 12, lines 1-25, a single area includes multiple base station subsystems and core network will page the mobile station to base station subsystem where mobile station is registered)**

Regarding claim 13, Gallagher discloses a method as claimed in claim 11, wherein said registering step includes registering said mobile station identification information in association with information identifying a group of access points in said access point controller. **(Col. 11, lines 60-67)**

Regarding claim 14, Gallagher discloses a method in an unlicensed-radio access network **(Fig. 2)** comprising a fixed broadband network with plurality of access points and an access controller connected to said fixed broadband network and to a core network portion of a licensed-radio cellular network and adapted to communicate with mobile stations over an unlicensed-radio interface via said access points, said method of comprising:

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said access controller establishing communication with a mobile station using a network address on said fixed broadband network for said mobile station, receiving identification information specific to a mobile station from said mobile station, **(Col. 14, lines 53-56)** registering said mobile station identification information in association with said mobile station network address on said fixed broadband network, **(Col. 14, lines 56-60)** determining when a connection established with said mobile station is no longer maintained and deleting said mobile station identification information when it is determined that a connection is no longer maintained. **(Col. 16, lines 61-67 and Col. 17, lines 1-25)**

Regarding claim 15, Gallagher discloses a method as claimed in claim 14, further comprising:

receiving in said access controller a message from said core network portion paging a mobile station, retrieving mobile station identification information registered for said paged mobile, and forwarding said paging message only to the network address identified in association with said registered mobile station identification information.

(Col. 14, lines 60-63, network controller monitors the paging request from the core network, and Col. 12, lines 18-22 paging to the subsystem where the mobile station is registered)

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mohammed (US 2003/0176186) discloses a method for automatic and seamless call transfers between licensed and unlicensed wireless networks.

Bantz et al. (US 5519706) discloses a dynamic user registration method in a mobile communications network.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KATHY WANG-HURST whose telephone number is (571)270-5371. The examiner can normally be reached on Monday-Thursday, 7:30am-5pm, alternate Fridays, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Tieu can be reached on (571)272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kathy Wang-Hurst
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/Lewis West/
Primary Examiner, Art Unit 2618